

CLAIMS:

1. A signal processing circuit comprising:

an attenuating unit that attenuates a demodulated signal acquired by detecting a received signal;

a detecting unit that detects a first signal indicating intensity of the demodulated signal; and

an attenuation rate setting unit that sets an attenuation rate of the attenuating unit based on the first signal, wherein

the attenuation rate setting unit sets the attenuation rate of the attenuating unit depending on:

at least one signal of a second signal indicating a change in an envelope curve acquired based on an intermediate frequency signal of the received signal and a third signal indicating electric field intensity acquired based on the intermediate frequency signal; and
the first signal.

2. The signal processing circuit of claim 1, comprising a difference determining unit that determines whether a predetermined threshold is exceeded by a difference of intensity of the demodulated signal having a predetermined time difference to detect noise, wherein the attenuation rate setting unit

sets a first attenuation rate for the attenuating unit based on the detection of noise by the difference determining unit,
and

after a predetermined period has elapsed from the setting, sets a second attenuation rate smaller than the first attenuation rate for the attenuating unit.

3. The signal processing circuit of claim 1 or 2, comprising a difference threshold setting unit that sets the threshold in the difference determining unit based on at least one signal of the first signal, the second signal, and the third signal.

4. The signal processing circuit of any one of claims 1 through 3, wherein

the signal processing circuit comprises a smoothing processing unit that smoothes the demodulated signal with frequency characteristics of a de-emphasis process reducing noise of the received signal, and wherein

the difference determining unit determines whether the predetermined threshold is exceeded by a difference of intensity of the demodulated signal having the predetermined time difference, which is smoothed by the smoothing processing unit, and wherein

the attenuation processing unit attenuates the demodulated signal smoothed by the smoothing processing unit.

5. The signal processing circuit of any one of claims 1 through 4, comprising:

a noise detecting unit that outputs a noise detection signal

based on the second signal and the third signal; and

an output controlling unit that inputs the output of the attenuating unit and the demodulated signal to add and output while setting amplification rates of the output of the attenuating unit and the demodulated signal based on the noise detection signal.

6. The signal processing circuit of claim 5, wherein the output controlling unit comprises:

a first amplifying unit that sets a level of the demodulated signal;

a second amplifying unit that sets a level of the output of the attenuating unit; and

an adding unit that adds and outputs the output of the first amplifying unit and the output of the second amplifying unit, and wherein

the output controlling unit increases the amplification rate of the second amplifying unit and performs adding and outputting, if the noise detection signal indicates that noise is detected, and wherein

the output controlling unit increases the amplification rate of the first amplifying unit and performs adding and outputting, if the noise detection signal does not indicate that noise is detected.

7. The signal processing circuit of any one of claims 1 through 6, wherein the received signal is an FM received signal.